KEKER & VAN NEST LLP
ROBERT A. VAN NEST - #84065
rvannest@kvn.com
CHRISTA M. ANDERSON - #184325
canderson@kvn.com
633 Battery Street
San Francisco, CA 94111-1809
Telephone: 415.391.5400
Facsimile: 415.397.7188

KING & SPALDING LLP
SCOTT T. WEINGAERTNER (*Pro Hac Vice)*
sweingaertner@kslaw.com
ROBERT F. PERRY
rperry@kslaw.com
BRUCE W. BABER (*Pro Hac Vice)*
1185 Avenue of the Americas
New York, NY 10036
Tel: 212.556.2100
Fax: 212.556.2222

KING & SPALDING LLP
DONALD F. ZIMMER, JR. - #112279
fzimmer@kslaw.com
CHERYL A. SABNIS - #224323
csabnis@kslaw.com
101 Second St., Suite 2300
San Francisco, CA 94105
Tel: 415.318.1200
Fax: 415.318.1300

IAN C. BALLON - #141819
ballon@gtlaw.com
HEATHER MEEKER - #172148
meekerh@gtlaw.com
GREENBERG TRAURIG, LLP
1900 University Avenue
East Palo Alto, CA 94303
Tel: 650.328.8500
Fax: 650.328-8508

Attorneys for Defendant
GOOGLE INC.

UNITED STATES DISTRICT COURT

NORTHERN DISTRICT OF CALIFORNIA

SAN FRANCISCO DIVISION

ORACLE AMERICA, INC.,
 	
                              Plaintiff,
 	
      v.
 	
GOOGLE INC.,
 	
                              Defendant.
	Case No. 3:10-cv-03561-WHA
	
	GOOGLE'S MOTION *IN LIMINE* NO. 2 TO EXCLUDE ALLEGED PERFORMANCE BENEFITS OF ANDROID WITH THE ACCUSED FUNCTIONALITY
	
	Judge: Hon. William Alsup
	
	Date Comp. Filed: October 27, 2010
	
	Trial Date: October 31, 2011

581324.02

GOOGLE'S MOTION *IN LIMINE* NO. 2 TO EXCLUDE ALLEGED PERFORMANCE BENEFITS OF
ANDROID WITH THE ACCUSED FUNCTIONALITY – CASE NO. 3:10-cv-03561-WHA

1

MOTION AND RELIEF REQUESTED

2   Under Federal Rules of Evidence 401, 402, 403 and 702, defendant Google Inc.

3   ("Google") hereby moves the Court for an order excluding *in limine* all evidence and argument

4   concerning the alleged performance benefits of Android with the accused functionality.

5

DISCUSSION

6   Oracle submitted four short reports by its own employees, Robert Vandette, Noel Poore,

7   Erez Landau and Seeon Birger ("the performance reports"), that collectively purport to quantify

8   the performance of Android with and without the alleged inventions claimed in five of Oracle's

9   asserted patents. Based on these reports, Oracle experts Dr. Mitchell (on patent infringement),

10   Dr. Goldberg (on patent validity) and Dr. Cockburn (on damages) conclude that alleged

11   infringement of the asserted patents results in performance gains on Android devices, and by

12   extension, is the basis for consumer demand and Android's success.

13   *First*, the Oracle employees who submitted the performance reports conceded that they

14   knew little about the Oracle patents, the asserted claims or the accused functionality. Moreover,

15   the employees lack any semblance of objectivity and failed to comply with the basic tenets of

16   *Daubert* and Rule 702. *Second*, the opinions are irrelevant to any issue of consequence in the

17   trial's initial liability phase—and thus are inadmissible under Rule 402 except in the damages

18   phase, at most. *Third*, the opinions should be excluded under Rule 403 even for the damages

19   phase of trial because the limited probative value of the performance reports is substantially

20   outweighed by the danger of misleading the jury into thinking that actual Android devices

21   running actual Android applications would experience a similar performance impact.

22   **1.   The Performance Reports Fail to Comply with *Daubert* and Rule 702**

23   The performance reports attempt to demonstrate the benefits of implementing five of the

24   asserted patents in the Android operating system. (The '447 and '476 patents are not addressed

25   in the reports). To accomplish this, Oracle ran various "performance benchmark" tests against

26   unmodified Android code to generate various performance statistics (*e.g.,* how fast applications

27   are executed or how much storage space they require in memory). Oracle then modified the

28   Android code to try disabling the accused functionality, and re-ran the same tests in order to

1

1 compare the two sets of results and point to any drop in performance as indicative of the benefits

2 provided by the patented techniques. The idea may *seem* simple in theory, but it is a complicated

3 task in practice, and Oracle's employees took countless shortcuts, disregarded approved

4 methodologies, and ran particular tests that were assured (and evidently designed) to reach the

5 conclusions sought by Oracle. Most critically, they made subpar modifications to the Android

6 code that were crude, hasty and in many instances crippled substantial non-accused

7 functionalities as well. The performance reports are so fraught with errors, assumptions and an

8 overall lack of detail that, had the reports been submitted for peer review to any reputable

9 technical journal or academic institution, they would be immediately rejected. *See Ellis v.*

10 *Costco Wholesale Corp.*, No. 07-15838, 2011 U.S. App. LEXIS 19060 at *25-26 (9th Cir. Sept.

11 16, 2011) ("Under *Daubert*, the trial court must act as a 'gatekeeper' to exclude junk science that

12 does not meet Federal Rule of Evidence 702's reliability standards by making a preliminary

13 determination that the expert's testimony is reliable." (citing *Kumho Tire Co. v. Carmichael*, 526

14 U.S. 137, 145 (1999).)

15   The essential prerequisite to any expert testimony is that it rest "on a reliable foundation."

16 *Daubert v. Merrell Dow Pharms., Inc.*, 509 U.S. 579, 584-587 (1993). As codified in Rule 702:

17   If scientific, technical, or other specialized knowledge will assist
      the trier of fact to understand the evidence or to determine a fact in
18   issue, a witness qualified as an expert by knowledge, skill,
      experience, training, or education, may testify thereto in the form
19   of an opinion or otherwise, if (1) the testimony is based upon
      sufficient facts or data, (2) the testimony is the product of reliable
20   principles and methods, and (3) the witness has applied the
      principles and methods reliably to the facts of the case.
21

22 **A. *It is Unclear What Was Done, Why, and By Whom***

23   Dr. Mitchell has no firsthand knowledge about any code modifications, test conditions, or

24 the actual tests. He participated in some phone calls, after which he believed the employees used

25 "modifications that [he] suggested" and that "the actual experiments that were carried out

26 reflected [his] suggestions and requests on how to do it." Mitchell Dep. Tr. (attached as Ex. 2 to

27 the Declaration of Daniel Purcell in Support of Google Inc.'s Motions *in Limine* ("Purcell

28 Decl.") filed herewith) at 81:16 – 82:6; *see also* Purcell Decl. Ex. 3 (Mitchell Patent Report) at ¶

2

GOOGLE'S MOTION *IN LIMINE* NO. 2 TO EXCLUDE ALLEGED PERFORMANCE BENEFITS OF
ANDROID WITH THE ACCUSED FUNCTIONALITY – CASE NO. 3:10-cv-03561-WHA

1   196. Yet, the Oracle engineers attribute *everything they did* to Dr. Mitchell. Robert Vandette

2   submitted a report on the '104 and '205 patents and admitted that he "relied on Dr. Mitchell to

3   interpret [the patent]." Purcell Decl. Ex. 4 (Vandette Dep. Tr.) at 74:16-17. When asked if he

4   had the "knowledge necessary to determine what functionality should be disabled," he responded

5   that he was "not a patent attorney" and did not "know exactly which claim in the ['104] patent

6   corresponds to [the] functionality" he disabled. *Id.* at 76:23-24; 77:24-78:1. Likewise, Noel

7   Poore submitted a report regarding the '520 and '702 patents and testified that he "looked

8   through the patent[s]" but had no idea which claims were asserted, and was "not necessarily

9   familiar enough with the detail of th[e] patent[s]" to know how they related to the accused

10   functionality. Purcell Decl. Ex. 5 (Poore Dep. Tr.) at 33-35; 74-75. Erez Landau revealed that

11   he reviewed only the Abstract of the '720 patent and "part of the claims." Purcell Decl. Ex. 6

12   (Landau Dep. Tr.) at 21-22.

13   In addition, Vandette, Poore and Landau all indicate in their August 9, 2011 reports that

14   they downloaded the Android code, modified it, compiled it and tested it. Purcell Decl. Ex. 7

15   (Vandette report) at ¶ 27-39; Purcell Decl. Ex. 8 (Poore report) at ¶ 12-14; Purcell Decl. Ex. 9

16   (Landau report) at ¶ 25-31. Now, in a report Oracle submitted on September 12, 2011 (after the

17   close of expert discovery), a *fourth* employee named Seeon Birger claims that *he* was the one

18   who downloaded the Android code, modified it, compiled it, and provided it to the other Oracle

19   employees. *See* Purcell Decl. Ex. 10 (Birger report) at ¶ 11-21. Landau admitted as much

20   during his deposition (*see* Purcell Decl. Ex. 6 (Landau Dep. Tr.) at 58-63), while Vandette and

21   Poore appear to have concealed the fact that someone else performed the work disclosed in their

22   reports. *See, e.g.,* Purcell Decl. Ex. 5, (Poore Dep. Tr.) at 25:9-11 ("Q. So you did all the work

23   in this report by yourself, correct? A. That's correct"). In short, Oracle failed to provide the

24   foundational report underlying the other performance reports until weeks later, without

25   explanation, and prejudicing Google's discovery into the benchmarking analyses. Even more

26   appalling, <u>Oracle refuses to present Mr. Birger for deposition</u>. *See* Purcell Decl. Ex. 11

27   (September 21, 2011 email from M. Francis to M. Peters.) For these reasons, all of the

28   benchmarking analyses are legitimately in question and should be excluded for Oracle's failure

3

GOOGLE'S MOTION *IN LIMINE* NO. 2 TO EXCLUDE ALLEGED PERFORMANCE BENEFITS OF
ANDROID WITH THE ACCUSED FUNCTIONALITY – CASE NO. 3:10-cv-03561-WHA

1 to comply with its expert-discovery obligations.

2 ### B. Oracle Made Improper Modifications to the Android Code

3 Oracle's modifications of Android code improperly disabled or corrupted functionality in

4 Android that is not accused of infringement. For example, Vandette disabled the JIT compiler

5 for his '104 patent tests, even though the JIT compiler was never accused in connection with that

6 patent. Purcell Decl. Ex. 4 (Vandette Dep. Tr.) at 84:18-25. With respect to the '205 patent,

7 which is asserted against a single feature of the JIT compiler, Vandette again disabled the whole

8 JIT compiler, even though the '205 patent itself recognizes the existence of JIT compilers in the

9 prior art. For tests relating to the '702 patent, Poore modified Android code so existing

10 duplicates would remain in the Android ".dex" files—but his report openly admits that the

11 modified code *created new duplicates* that did not previously exist. Purcell Decl. Ex. 8 (Poore

12 Report) at ¶ 23. Landau admitted that when disabling the copy-on-write functionality allegedly

13 claimed by the '720 patent, his test program loaded **1,264 files** into memory, but readily agreed

14 that "if copy-on-write is disabled, it would just be a waste of memory to load these [files] …"

15 and it would make no sense to have Android run that way. Purcell Decl. Ex. 6 (Landau Dep. Tr.)

16 at 86:1-87:24. As a whole, the performance reports fail to account for changes beyond the

17 accused functionality responsible for differences in performance between the original and

18 modified code. *See Claar v. Burlington N.R.R.*, 29 F.3d 499 (9th Cir. 1994) (testimony excluded

19 where the expert failed to consider other obvious causes for the plaintiff's condition). Oracle's

20 experts offer no recognized methodology guiding their modifications of the Android source

21 code. Under *Daubert*, the Court needs to exclude expert testimony unless the "methodology

22 underlying the testimony is scientifically valid." 509 U.S. at 592-93.

23 ### C. Oracle's Reports Draw Conclusions Not Supported by Its Tests

24 Even assuming that Oracle's performance reports quantify the difference in running

25 Android code with and without the accused functionality, Oracle uses the test results to make

26 unfounded conclusions that those results are indicative of the patents' impact on the real-world

27 performance of Android, as follows:

28 • Vandette and Poore did not test the performance of any actual Android applications;

4

581324.02

GOOGLE'S MOTION *IN LIMINE* NO. 2 TO EXCLUDE ALLEGED PERFORMANCE BENEFITS OF ANDROID WITH THE ACCUSED FUNCTIONALITY – CASE NO. 3:10-cv-03561-WHA

1 • Vandette and Poore did not test the performance of any actual Android devices;

2 • Landau tested 17 Android applications *at one time* on the Nexus One device released nearly

3   two years ago, and—as mentioned above—he modified the code to operate in a manner that

4   would *never* be implemented by Google and made no practical sense. *See* Purcell Decl. Ex.

5   12 (Landau Dep. Ex. 494) (Android's website specifically states that the Nexus One should

6   *not* be used for testing);

7 • None of the employees attempted to implement reasonable non-infringing substitutes—they

8   simply crippled the code in a manner that would never actually be implemented;

9 • None of the tests measure overall system performance on an Android device and they fail to

10   recognize that the *Dalvik VM is used only 1/3 of the time by Android*—the other 2/3 of time

11   Android is executing native machine code. *See* Purcell Decl. Ex. 13 (Vandette Dep. Ex. 462,

12   May 2010 Google IO presentation) at slide 5;

13 • Oracle's employees downloaded and tested a *development* version of Android's "Froyo"

14   source code and not any particular code release that has been used by actual devices;

15 • There is nothing in the employee reports that indicates whether they followed the specific

16   instructions on Android's website for downloading, compiling and installing Android on

17   devices. (For example, Landau testified that Mr. Birger used version 6 of the JDK software

18   to compile Android "Froyo" code, whereas the Android website specifically requires that

19   version 5 of the JDK be used. *See* Purcell Decl. Ex. 6 (Landau Dep. Tr.) at 61:17-21; Purcell

20   Decl. Ex. 14 (Landau Dep. Ex. 491)

21   Taking these factors into account, "there is simply too great an analytical gap between the

22 data and the opinion proffered." *General Elec. Co. v. Joiner*, 522 U.S. 136, 146 (1997). All of

23 Oracle's expert conclusions based on these reports amount to just "subjective belief or

24 unsupported speculation" and should be excluded. *Daubert*, 509 U.S. at 588-90 ("[I]f an opinion

25 is fundamentally unsupported, then it offers no expert assistance to the jury.").

26

27 **2.   The Performance Reports Should Be Excluded From the Liability Phase of the Case
         under Rule 402**

28   Evidence regarding the purported performance impact of the asserted patents is

5

1   potentially probative of only damages theories, and all damages issues have been bifurcated.

2   Thus, the purported performance impact of the asserted patents has no bearing on alleged

3   infringement or invalidity and has no relevance to the liability phase of the trial.

4   As stated in Google's motion regarding "commercial success," claims about the

5   performance with and without the asserted patents pose at least a "modest likelihood" of unfair

6   prejudice and a more than a "small risk" of misleading the jury because it tends to create an

7   inflated sense of the patent's importance to the success of Android. *See United States v.*

8   *Gonzalez-Flores*, 418 F.3d 1093, 1098 (9th Cir. 2005) (applying Rule 403 and holding that

9   "[w]here the evidence is of very slight (if any) probative value, it's an abuse of discretion to

10 admit it if there's even a modest likelihood of unfair prejudice or a small risk of misleading the

11 jury") (citation omitted); *see also United States v. Espinoza-Baza*, 647 F.3d 1182, 1190 (9th Cir.

12 2011) ("evidence presenting even a 'modest likelihood of unfair prejudice' is 'high enough to

13 outweigh the . . . probative value' of marginally relevant evidence" under Rule 403) (citation

14 omitted).

15
16 **3.   The Performance Reports Should Be Excluded From the Damages Phase of the
        Case under Rule 403**

17   As explained above, Oracle's performance reports fail to analyze the performance impact

18 of the accused infringing features on real-world Android devices and applications. Furthermore,

19 the results are unreliable because they do not account for realistic non-infringing alternatives or

20 the detrimental impact of Oracle's sloppy code modifications to non-infringing Android

21 functionality. In view of these limitations, Oracle's reports offer little probative value, which

22 value is substantially outweighed by its capacity to be used in prejudicial ways. For example,

23 Oracle may contend that consumers' Android products would suffer a noticeable performance

24 impact without the accused functionality. But this premise is unsupported by the performance

25 reports, which focus on micro-benchmarks of the virtual machine, not overall system

26 performance. Even if Oracle presents testimony within the scope of the reports, it threatens to

27 mislead the jury to conclude that actual Android performance will mimic Oracle's test results,

28 given all the flaws discussed above. Either way, the Court should exclude evidence regarding

GOOGLE'S MOTION *IN LIMINE* NO. 2 TO EXCLUDE ALLEGED PERFORMANCE BENEFITS OF
ANDROID WITH THE ACCUSED FUNCTIONALITY – CASE NO. 3:10-cv-03561-WHA

1   the performance reports. *See* Rule 403 ("evidence may be excluded if its probative value is

2   substantially outweighed by the danger of unfair prejudice, confusion of the issues, or misleading

3   the jury…"); *Daubert*, 509 U.S. at 595 ("Expert evidence can be both powerful and quite

4   misleading because of the difficulty in evaluating it." (citation omitted)).

5   As a final note, in order to safeguard the effectiveness of its ruling and thus avoid the

6   danger of prejudice, the Court also should bar counsel for both parties from making any remarks

7   in opening argument about the alleged performance benefits of the asserted patents in Android.

8   Respectfully submitted,

9   Dated: September 24, 2011   KEKER & VAN NEST LLP

10

11   By: s/ Robert A. Van Nest
                                         ROBERT A. VAN NEST
12   Attorneys for Defendant
                                         GOOGLE INC.

13

14

15

16

17

18

19

20

21

22

23

24

25

26

27

28

581324.02   GOOGLE'S MOTION *IN LIMINE* NO. 2 TO EXCLUDE ALLEGED PERFORMANCE BENEFITS OF
                  ANDROID WITH THE ACCUSED FUNCTIONALITY – CASE NO. 3:10-cv-03561-WHA